

CLAIMS

What is claimed is:

1. A portable computer comprising:
a flat-panel display;
a display controller for outputting an internal video signal to the flat panel display;
means for receiving an external video signal; and
a multiplexer for outputting either the internal video signal or the external video signal to the flat-panel display.
2. The portable computer of claim 1 further including an analog-to-digital converter and converter logic coupled between the receiving means and the multiplexer for converting the external video signal into a format required by the flat-panel display.
3. The portable computer of claim 2 wherein the receiving means includes a sensor for automatically sensing the external video signal and causing the multiplexer to output the external video signal for display.
4. The portable computer of claim 3 wherein receiving means includes a software driver that enables a user to manually select between displaying the internal video signal or the external video signal.
5. The portable computer of claim 4 wherein the receiving means includes a dual mode display connector coupled to the analog-to-digital converter for receiving the external video signal.

1 6. The portable computer of claim 4 wherein the portable computer includes
2 an external CRT connector and wherein the receiving means includes a
3 dual mode display adapter coupled to the external CRT connector for
4 accepting the external video signal.

1 7. The portable computer of claim 6 wherein the portable computer further
2 includes a second multiplexer coupled between the external CRT
3 connector and a digital-analog-converter for isolating the output of the
4 digital-analog-converter so that the external video signal may be received
5 through the dual mode display adapter and the external CRT connector.

1 8. A method for enabling a portable computer to display an external video
2 signal, the portable computer having a flat-panel display, the method
3 comprising the steps of:
4

- 1 1. providing the portable computer with means for receiving the
2 external video signal;
- 3 2. inputting an internal video signal to a multiplexer;
- 4 3. inputting the external video signal to the multiplexer; and
- 5 4. providing the portable computers with dual display modes, such
6 that in a first display mode, the multiplexer outputs the internal
7 video signal to the flat-panel display, while in a second display
8 mode, the multiplexer outputs the external video signal to the flat-
9 panel display, thereby enabling the portable computer to act as a
10 display device for an external computer.
11
12
13

- 1 9. The method of claim 8 wherein step (a) further includes the step of:
2 coupling an analog-to-digital converter and converter logic between the
3 receiving means and the multiplexer for converting the external video
4 signal into a format required by the flat-panel display.
- 1 10. The method of claim 9 wherein step (a) further includes the step of:
2 providing the receiving means with a sensor for automatically sensing the
3 external video signal and causing the multiplexer to output the external
4 video signal for display.
- 1 11. The method of claim 10 wherein step (a) further includes the step of:
2 providing the receiving means with a software driver enables a user to
3 manually select between displaying the internal video signal or the
4 external video signal.
- 1 12. The method of claim 11 wherein step (a) further includes the step of:
2 coupling a dual mode display connector to the analog-to-digital converter
3 for receiving the external video signal.
- 1 13. The method of claim 11 wherein the portable computer includes an
2 external CRT connector and wherein step (a) further includes the step of:
3 coupling a dual mode display adapter to the external CRT for accepting
4 the external video signal.

1 14. The method of claim 13 wherein step (a) further includes the step of:
2 coupling a second multiplexer between the external CRT connector and a
3 digital-analog-converter for isolating the output of the digital-analog-
4 converter so that the external video signal may be received through the
5 dual mode display adapter and the external CRT connector.

1 15. A dual display mode portable computer comprising:
2 a flat-panel display;
3 a display controller for generating an internal video signal; and
4 receiving means for receiving an external video signal, the receiving
5 means including,
6 a dual mode display connector for receiving the external video signal,
7 an analog-to-digital converter coupled to the dual mode display connector
8 for converting the external video signal into a digital external video signal,
9 converter logic coupled to the analog-to-digital converter for mapping the
10 digital external video signal into a format required by the flat-panel, and
11 a multiplexer coupled to the display controller and the converter logic for
12 receiving the internal video signal and the external video signal, such that
13 that in a first display mode, the multiplexer outputs the internal video
14 signal to the flat-panel display, while in a second display mode, the
15 multiplexer outputs the external video signal to the flat-panel display,
16 thereby enabling the portable computer to act as a display device for an
17 external computer.

1 16. A dual display mode portable computer comprising:
2 a flat-panel display;
3 a display controller for generating an internal video signal;
4 a digital-to-analog converter and an external CRT connector for
5 outputting the internal video signal to an external monitor; and
6 receiving means for receiving an external video signal, the receiving
7 means including,
8 a dual mode display adapter coupled to the external CRT connector for
9 enabling the external CRT connector to receive an external video signal,
10 an analog-to-digital converter coupled to the external CRT connector for
11 converting the external video signal into a digital external video signal,
12 converter logic coupled to the analog-to-digital converter for mapping the
13 digital external video signal into a format required by the flat-panel;
14 a first multiplexer coupled between the digital-to-analog converter and the
15 external CRT connector, and
16 a second multiplexer coupled to the display controller and the converter
17 logic for receiving the internal video signal and the external video signal,
18 such that in a first display mode, the first multiplexer outputs the
19 internal video signal to the flat-panel display, while in a second display
20 mode, the first multiplexer isolates output from the digital-to-analog
21 converter while the second multiplexer outputs the external video signal
22 to the flat-panel display, thereby enabling the portable computer to act as
23 a display device for an external computer.